

even these patients whose history and symptoms form an indication for operative interference.

As regards the technique, he has adopted the suggestion of Kocher, to make a large trephine opening and excise the dura. He has never drained the ventricles, and his trephine opening is usually larger than that of Kocher. If the symptoms lead him to suspect a spot in the skull in which there had been an injury, he, of course, trephined at this place, otherwise his trephine opening was always placed at the posterior end of the right frontal convolutions. Of the eleven cases which he operated upon, three are of special interest. In one case the clinical picture was that of a very severe epilepsy accompanied by idiocy. This patient had never had any attacks again, and his psychological condition was almost incredibly improved. The epileptic condition had existed thirteen years before the operation. The second patient has so markedly improved that he has been able to engage in an occupation in which there is great mental strain, and a third patient has been able to pursue a scientific career with success. Even three of the most discouraging cases of genuine epilepsy, with psychological changes, such as idiocy, have been influenced, so that in two of the cases the old clinical picture did not recur for months after the operation. A third case remained free from attacks for one year, but there was an unfavorable change in the psychological condition. The remainder of the cases are reported in detail in the original article.

H. KÜMMELL, of Hamburg, in the discussion stated that his permanent results were not so favorable as those of Friedrich. Shortly after the operation the condition was very encouraging. The attacks ceased for almost a year. In only one case (and that was a seven-year-old boy) was there complete recovery.—*Proceedings of the German Surgical Congress, 1905.*

II. The Operative Treatment of Purulent Meningitis. By DR. H. KÜMMELL, of Hamburg. This disease has been subjected

to operation in but three cases and recovery has been very rare. The circumscribed form which frequently accompanies middle ear disease has been operated upon a number of times with excellent results. Kümmell himself has had three cases of circumscribed purulent meningitis following middle ear disease which he operated upon through a large opening in the skull. All of these recovered. But in a number of cases similarly treated death ensued in spite of operation. He has carried out a similar method in a number of cases of tubercular meningitis without any recoveries, but the operation has had a favorable influence on the severe headaches and temperature. He also operated upon two cases of purulent meningitis, one following a fracture at the base of the skull and the other an ascending meningitis following an operation on the spinal canal. In the former case the lumbar puncture showed thick pus under great pressure. The patient was a man thirty-three years of age, and was admitted to the hospital ten days after the injury, deeply comatose and almost pulseless. A trephine opening was made through the skull over both parietal bones and strips of gauze inserted deeply towards the base of the skull. He improved gradually from day to day. Lumbar puncture on the third day showed only slightly turbid fluid. On the sixth day it was quite clear. There was transient aphasia and agraphia. The patient was discharged from the hospital after four weeks, fully recovered and able to work. In the second case following the operation on the spinal canal there was improvement in the symptoms, the coma and pain disappearing, but the patient died a little later.—*Proceedings of the German Surgical Congress, 1905.*

III. Intraneural Injections of Antitoxin in the Treatment of Tetanus. PROFESSOR KÜSTER (of Marburg) reported a case of local tetanus with injection of antitoxin into the nerves and recovery. Gumprecht was the first to call attention that the tetanus toxins reached the central nervous system through the